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## **CLAIMS**

- A system for repetition coded compression comprising means for capturing the image, means for converting to digital form, means for reshaping the data into matrix form, means for encoding the repetitions into bit-plane index and stored data values, means for storing the compressed data and means for retrieving the data.
- A system for repetition coded compression for performing a single mathematical operation for compressing image data and also with zero multiplication involved.
- 3. A system of repetition coded compression for encoding said repetitions along the said horizontal and said vertical directions.
- 4. A method of repetition coded compression to compress image and other highly correlated data comprising of the following steps:
  - a) Capturing the image
  - b) Converting into digital form
  - c) Reshaping the data into matrix form



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- d) Encoding the repetitions into a bit-plane index and stored data values
- e) Storing the compressed data in storage memory
- f) Retrieving the data for decompression
- A method of repetition coded compression for deriving said bitplanes containing information regarding the said repetitions along the said horizontal and said vertical directions.
- 6. A method of repetition coded compression for combining the said horizontal and said vertical bit-planes by a said binary addition operation to result in the said RCC bit-planes.
- 7. A method of repetition coded compression to compare the derived said RCC bit-planes with the said original image matrix to obtain the said final RCC data values.
- 8. A method of repetition coded compression to store and archive the said RCC data values along with the said horizontal and said vertical bit-planes.
- A method of repetition coded compression to reconstruct the original image from the stored said RCC data values and the said bit-planes

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- 10. A system of repetition coded compression to archive the compressed image data values and also to retrieve the same to reconstruct the original image.
- 11. A method of repetition coded compression for lossless compression of image data values.
- 12. A method of repetition coded compression for lossy compression by comparison with a said threshold value to achieve significantly higher compression ratio.
- 13. A system of repetition coded compression for implementation of the said compression method for various applications like Medical Image Archiving and Transmission, Database Systems, Information Technology, Entertainment, Communications & Wireless Applications, Satellite Imaging, Remote Sensing, Military Applications.
- 14. A system of repetition coded compression for compressing image and other highly correlated data described in the description and illustrated by the way of drawings.
- 15. A method of repetition coded compression for image compression as described in the description and illustrated by the way of drawings.